REMARKS

Receipt of the Office Action dated May 16, 2005 is acknowledged. Claims 80-82 have been amended herein. Claims 27-34, 54-59 and 80-82 are pending. Claims 27-34, 54-59 and 80-82 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deihl (WO 94/13280) in view of Fassberg et al (EP 0656206). Reconsideration is earnestly solicited.

The PTO relies on Deihl as teaching a sprayable analgesic composition where the analgesic is capable of being absorbed into the bloodstream through the buccal mucosa. The PTO states that Deihl teaches that the analgesic is ibuprofen and the liquid carrier is aqueous ethanol. The PTO further relies on Table I as showing the concentration range of each ingredient. (Office Action at 3).

The PTO acknowledges that, beyond the disclosed analgesics and solvent, Deihl does not disclose any other suitable active agent or the use of any other solvents. Deihl does not disclose any non-polar solvent, required by Applicant's independent claims 81 and 82, and does not disclose the specific solvents of Applicant's dependent claims. Deihl also does not disclose the claimed biologically active peptides, central nervous system active amines, sulfonyl ureas, antibiotics, antifungals, sleep inducers, antiasthmatics, antiemetics, antivirals, histamine H-2 receptor antagonists, barbiturates, prostaglandins, or bronchial dilators. In order to overcome these deficiencies, the PTO relies on Fassberg.

According to the PTO, Fassberg discloses an aerosol formulation for oral and/or nasal administration including actives such as antihistamines, antiallergics, analgesics, antibiotics, steroids, and bronchodialators. For at least the following reasons, this rejection should be withdrawn.

As acknowledged by the PTO, Deihl does not disclose non-polar solvents or any other suitable active agent beyond the specifically disclosed analgesics, acetaminophen and ibuprofen. Deihl does not disclose or suggest the inclusion of the active agents of any of Applicant's claims, i.e., the claimed biologically active peptides, central nervous system active amines, sulfonyl ureas, antibiotics, antifungals, sleep inducers, antiasthmatics, antiemetics, antivirals, histamine H-2 receptor antagonists, barbiturates, prostaglandins, or bronchial dilators. There is simply no teaching or suggestion in Deihl to include any active agent other than an analgesic.

Furthermore, the methods of Applicant's independent claims recite spraying the oral mucosa of the mammal with a buccal spray composition, containing a pharmacologically active compound and "between 30 and 99 percent" of a pharmacologically acceptable solvent. The PTO states that "[t]he table in example I [of Deihl] shows the concentration ranges of each ingredient." (Office Action at 3.) Example I of Deihl, however, discloses that the composition includes only 8.08% solvent (50 parts SD alcohol per 618.82 total parts).

In contrast to Deihl, the present independent claims recite spraying the oral mucosa of the mammal with a buccal spray composition, containing a pharmacologically active compound and "between 30 and 99 percent" of a pharmacologically acceptable solvent. There is nothing in Deihl that discloses or suggests including between 30 and 99% solvent as in Applicant's independent claims. Nor is there anything in Deihl to disclose or suggest any non-polar solvent, much less a non-polar solvent in an amount between 30 and 99%, as required by Applicant's independent claims 81 and 82.

There is nothing in Fassberg to overcome any of these deficiencies in Deihl. Fassberg relates to an inhalation aerosol, propellant-containing spray or powder

formulation for oral and/or nasal administration, including actives such as antihistamines, antiallergics, analgesics, antibiotics, steroids, and bronchodialators for treating asthma. Fassberg does not disclose or suggest a method for the delivery of an active agent by spraying the oral mucosa of a mammal with a propellant free buccal spray composition, to provide transmucosal absorption of a pharmacologically effective amount of any active compound to the systemic circulatory system through the oral mucosa.

According to the PTO, it would have been obvious "to have looked in the art for other specific active agents suitable for spray formulations of liquid carriers, as taught by Fassberg et al., with reasonable expectations of successfully preparing suitable formulations for various therapies." (Office Action at 4.) The PTO overlooks that the Applicant's claims are to methods of buccal administration and there is no disclosure or suggestion in either of the cited references that any active agents other than acetaminophen and ibuprofen could be administered in pharmacologically effective amounts to the systemic circulatory system via absorption through the oral mucosa. There is no suggestion or motivation in Fassberg to apply its active agents in the method or formulation of Deihl. To the contrary, Fassberg formulates its activities for administration, and administers its actives, via inhalation.

The PTO has simply not provided any motivation, beyond the impermissible use of Applicant's specification as a roadmap, to combine the relied upon references to arrive at the claimed invention. Courts have generally recognized that a showing of a *prima facie* case of obviousness necessitates three requirements: (i) some suggestion or motivation, either in the references themselves or in the knowledge of a person of ordinary skill in the art, to modify the reference or combine the reference teachings; (ii) a reasonable expectation of success; and (iii) the prior art references must teach or

suggest all claim limitations. See e.g., In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998); Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573 (Fed. Cir. 1996). Applicants further note that in order to establish a *prima facie* case of obviousness, "[i]t is insufficient that the prior art disclosed the components of the patented device, either separately or used in other combinations; there must be some teaching, suggestion, or incentive to make the combination made by the inventor." Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990). This way, "the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as a whole for which patentability is claimed." Hartness Int'l, Inc. v. Simplimatic Engineering Co., 819 F.2d 1100, 1108 (Fed. Cir. 1987). Accordingly, a determination of obviousness "must involve more than indiscriminately combining prior art; a motivation or suggestion to combine must exist." Pro-Mold & Tool Co., 75 F.3d at 1573. Here, the PTO has not met its burden of showing a *prima facie* case of obviousness against the pending claims. There is no motivation to combine the buccal spray of Deihl with the inhalation spray or powder of Fassberg.

The inhalation formulations of Fassberg are not intended to and cannot provide a pharmacologically effective amount of any active systemically via absorption through the oral mucosa. As the PTO acknowledges, the Fassberg formulations contain "pharmaceutically active compounds which are to be delivered by oral inhalation or nasally." (Fassberg at page 5, lines 42-43, emphasis added.)

Moreover, the present claims recite that the compositions are "propellant free." In contrast to the present method of administering "propellant free" compositions, Fassberg is confined to administering compositions that comprise a propellant which constitutes a majority of the composition. The optional excipients of

Fassberg are included to lower the discharge pressure to an acceptable range, and to facilitate the compatibility of the active compound with the propellant. (Page 4, lines 52-53.) Accordingly, without any propellant, there would be no need to include any of the optional polar or non-polar excipients of Fassberg.

Thus, no permissible combination of the cited references would achieve Applicant's pending claims. Moreover, the person having ordinary skill in the art would have found no motivation to combine the disclosures of Deihl and Fassberg, other than the use of Applicant's specification as a roadmap, to arrive at the claimed invention. In order for an obviousness rejection to be proper, there must be some suggestion or motivation, either in the references themselves or in the knowledge of a person of ordinary skill in the art, to modify the reference or combine the reference teachings. Here, there is none.

For the above reasons, Applicant respectfully requests that the rejections under 35 U.S.C. § 103(a) of the independent claims be reconsidered and withdrawn. Each of Applicant's dependent claims is allowable for at least the same reasons.

In view of the above, Applicant believes the pending application is in condition for allowance. If the Examiner should believe that anything further may be required to place this application in even better form for allowance, she is cordially invited to telephone the Applicant's undersigned representative.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Dated: October 17, 2005

Respectfully submitted,

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